STATE OF NEW MEXICO

BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF THE PETITION TO ADOPT NEW REGULATIONS WITHIN 20.2 NMAC, STATEWIDE AIR QUALITY REGULATIONS, TO REQUIRE GREENHOUSE GAS EMISSIONS REDUCTIONS	)	EIB No. 8-19 (R)
NEW ENERGY ECONOMY, INC. PETITIONER	)	

ORDER AND STATEMENT OF REASONS FOR ADOPTION OF REGULATION

This matter comes before the New Mexico Environmental Improvement Board ("Board") upon a petition filed by New Energy Economy ("NEE" or "Petitioner"), proposing new regulations within 20.2 NMAC. A public hearing was convened in Santa Fe, New Mexico on August 16 through 20, 2010 and October 5 through 6, 2010. The Board heard technical testimony from Petitioner and other interested parties and admitted exhibits into the record. On December 6, 2010, the Board having familiarized itself with the record and the transcript of the proceedings, deliberated and adopted the proposed new regulations with several amendments by an affirmative vote of 4 to 1 and 1 recusal for the reasons that follow:

PROCEDURAL HISTORY

1. December 19, 2008 and February 2, 2009, respectively, Petitioner filed an original and a corrected regulatory proposal to the Board.

2. On January 5, 2009, pursuant to Section 74-1-9(A) of the EIA and Section 74-2-6(A) AQCA, the Board held a public meeting to "determine whether or not to hold a hearing" on the Petitioner's "proposed regulation." Several opponents urged the Board to deny the Petition

for Hearing, alleging that the Board lacked the authority to consider Petitioner's regulatory proposal. In response to opponents' arguments, the Board instructed the parties to brief the issue of the Board's jurisdiction and authority, appointed a hearing officer, and informed the parties that it would take up the matter again at its April 6, 2009 meeting.

3. On April 6, 2009, after hearing extensive public comment, briefing and oral argument, the Board decided that it "had the authority to hear this case" and scheduled a hearing.

4. On October 14, 2009, the Hearing Officer (Gay Dillingham) issued her First Order for Hearing Procedures.

5. On December 31, 2009, public notice was published on the Petitioner's regulatory proposal.

6. On January 13, 2010, a group state legislators, corporations and industry associations filed a lawsuit against the Board in the Fifth Judicial District in Lea County.

7. On January 14, 2010, the Hearing Officer (Gay Dillingham) issued her Second Order for Hearing Procedures.

8. On February 17, 2010, the Hearing Officer (Gay Dillingham) issued a Third Order for Hearing Procedures and an Order on March 1, 2010 hearing procedures.

9. On March 1, 2010, the Board held a public hearing for the sole purpose of taking public comment on NEE's Petition.

10. On March 2, 2010, the Petitioner submitted its Notice of Intent to Present Technical Testimony ("NOI"), which included pre-filed technical testimony and, pursuant to 20.1.1.302 NMAC, recommended changes.

11. On March 12, 2010, several opponents filed a Motion to Strike Petitioner's Technical Testimony.

12. On April 1, 2010, the Hearing Officer (Felicia Orth) denied the Motion and ordered additional notice on Petitioner's recommended changes to be published. This additional notice was published On April 15, 2010.

13. On April 29, 2010, the District Court issued a temporary injunction effectively halting the Board's proceedings in this matter.

14. On May 4, the Hearing Officer issued an Order staying prehearing deadlines and hearing dates.

15. Petitioner and the Attorney General sought review of the injunction in the New Mexico Supreme Court.

16. The Supreme Court ordered the Lea County court to dismiss opponents' case and dissolve the injunction issued against the Board. *See New Energy Economy v. Shoobridge*, 2010-NMSC-049.

17. On June 16, 2010, the District Court dissolved the temporary injunction and dismissed the case.

18. On June 18, 2010, Petitioner filed an Emergency Motion to Lift Stay and Resume Hearing Pursuant to Modified Schedule. The Hearing Officer then issued an Order lifting the stay.

19. On July 16, 2010, all other interested parties filed their NOIs.

20. On August 6, 2010, all parties filed their NOIs to present rebuttal testimony.

21. On August 12, 2010, NMOGA, et al. filed a Motion for Summary Disposition. The Board refused to consider the motion as it was filed late according to the Board's rules.

22. On November 22, 2010, all parties filed closing arguments.

23. On November 22, 2010, NMOGA filed a Motion to Disqualify Board Member John Horning.

24. At the December 6, 2010 meeting, Board Member Horning announced on the record that he would recuse himself from voting and any further participation in the matter.

LEGAL AUTHORITY

1. The Board is authorized by the Air Quality Control Act ("AQCA") to adopt regulations "to prevent or abate air pollution...within the geographic area of [its] jurisdiction." NMSA 1978, § 74-2-5(B).

2. "In making its regulations, the environmental improvement board or the local board shall give weight it deems appropriate to all facts and circumstances, including but not limited to: (1) character and degree of injury to or interference with health, welfare, visibility and property; (2) the public interest, including the social and economic value of the sources and subjects of air contaminants; and (3) technical practicability and economic reasonableness of reducing or eliminating air contaminants from the sources involved and previous experience with equipment and methods available to control the air contaminants involved." NMSA 1978, § 74-2-5(E).

3. A court will not reverse the Board's decision to adopt Part 100 unless the Board's decision is "(1) arbitrary, capricious or an abuse of discretion; (2) not supported by substantial evidence in the record; or (3) otherwise not in accordance with law." NMSA 1978, § 74-2-9(C).

STATEMENT OF REASONS

I. Character and Degree of Injury & Public Interest.

1. Public interest in and support of the proposed regulation was demonstrated throughout the hearing. Tr. 1 at 276-292; Tr. 2 at 370-378, 381-391; Tr.4 at 52-71, 73-105; Tr. 6 at 18-21, 24-33; Tr. 7 at 297-300, 351-368; Tr. 8 at 344-41.

2. The United States Environmental Protection Agency ("EPA") described the relationship between GHG emissions, climate change and injury to public health and welfare in its recent "Endangerment Finding":

> The specific issue here is whether an effect on human health that results from a change in climate should be considered when EPA determines whether the air pollution of well-mixed greenhouse gases is reasonably anticipated to endanger public health. In this case, the air pollution has an effect on climate. For example the air pollution raises surface, air, and water temperatures. Among the many effects that flow from this is the expectation that there will be an increase in the risk of mortality and morbidity associated with increased intensity of heat waves. In addition, there is an expectation that there will be an increase in levels of ambient ozone, leading to increased risk of morbidity and mortality from exposure to ozone. All of these are effects on human health, and all of them are associated with the effect on climate from elevated atmospheric concentrations of greenhouse gases. None of these human health effects are associated with direct exposure to greenhouse gases.

Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 FR 66496, 66527 (December 15, 2009). (Petitioner's NOI, Exhibit P.10).

3. Dr. Gutzler, a well respected climate scientist, testified in support of proposed Part 100 all day on August 18. Tr. 3. Dr. Gutzler is a climate scientist and professor at the University of New Mexico. He has a PhD in Meteorology and has authored or co-authored numerous published reports and studies on the topic of climate variability and change. Since joining the faculty of UNM, much of his research has focused specifically on the climate of southwestern North America. (*See* Petitioner's NOI, Exhibit P.13 (Gutlzer CV)).

4. Dr. Gutzler's testimony, confirmed by his own research, presented the overwhelming scientific consensus that manmade greenhouse gas emissions are causing climate change, and that increasing emissions will increase the severity of climate change. (Tr. 3 at 27-30, 34-39, 57-58, 62-63, 167, 221-22, 225-226, 273-275).

5. Although past GHG emissions make it impossible to avoid climate change altogether, we can likely mitigate the most adverse effects of climate change by significantly reducing future GHG emissions. (Tr. 3 at 35). If not mitigated, the adverse effects of climate change could be catastrophic, particularly in New Mexico and the Southwest. (Tr. 3 at 14, 20-27, 29-33, 53, 84, 97, 255). Adverse effects include increased frequency and severity of drought, less snowpack and stream flow, more heat waves, and a substantial decrease in Gila Trout habitat. (Tr. 3 at 20-25, 29, 31-32, 49-50, 58, 220-21, 224, 275-277). Changes in climate induced by manmade greenhouse gas emissions could be abrupt and non-linear. (Tr. 3 at 49). The effects of climate change have already been observed. (Tr. 3 at 54-56).

6. Dr. Gutzler thoroughly explained why so-called "climategate" is merely a distraction without substance. Nothing in the stolen emails undermines the overwhelming evidence and body of scientific knowledge regarding climate change. (Tr. 3 at 43-46, 68-71). Dr. Gutzler discussed and debunked several popular myths regarding climate change. (Tr. 3 at 72-82).

7. Although he acknowledged that uncertainties exist, as they do in virtually all scientific endeavors, Dr. Gutzler believes that the evidence of human-caused climate change is compelling. (Tr. 3 at 63-64, 268, 272).

8. No climate scientist testified on behalf of opponents. Mr. Kappelman included a draft paper by a climate change skeptic, an economist, which Mr. Kappelman characterized as merely listing contrarian theories without judgment. Tr. 7 (Kappelman) at 336-338.

9. Compliance with Part 100 will reduce New Mexico's contribution to global warming at a rate consistent with the scientific consensus; and it will serve as an impetus for the United States Congress and other states to act. Pet. NOI, Tab C at 25; Pet. R-NOI, Tab B at 3, 30-31; Tr. 1 (Michel) at 109-110; Tr. 3 (Dr. Gutzler) at 265 (supporting the proposed rule); Tr. 5 (Michel) at 299; Tr. 6 (Michel) at 182-83, 210; Tr. 7 (Sprott) at 215-218, 268-69; Tr. 9 (Michel) at 324-25.

10. States acting together can have a substantial impact on climate change (Tr. 7 (Sprott) at 237).

II. Economic Reasonableness

11. The regulation is market-based and does not dictate how sources reduce CO2 emissions, but allows them to achieve compliance at the lowest cost possible. Tr. 1 (Michel) at 38-39, 65, 102-103; Tr. 5 (Michel) at 249-251, 260-67; Tr. 6 (Michel) at 164-165; Tr. 7 (Sprott) at 266; Tr. 7 (Michel) at 41. The regulation will have a negligible impact on utility costs and will not cause gasoline prices to increase. Tr. 6 (Michel) at 172-176; Tr. 7 (Michel) at 84; Tr. 9 (Michel) at 324, 343-44.

12. The regulation includes a cost cap, such that once a source's expenditures on compliance reach the cap in a given year its reduction obligation is satisfied. § 20.2.100.12; Tr. 7 (Michel) at 91-92. Application of this cost cap to the regulated sources represents a scenario in which sources cannot reduce emissions through efficiency or technology measures or through credits, but are forced to comply solely through the purchase of offsets at a price greater or equal to $50.00 per mton each and every year.[1] Tr. 5 (Michel) at 198-199, 222-224, 227-228; Tr. 7 (Michel) at 18-22. Under this scenario, the cost of the regulation will be minimal, representing in terms of revenues less than 1% per year for utilities, 0.08% for oil refining, and 0.25% for gas

[1] $50.00 is the "carbon price," which increases by $1.0 each year. Substantial evidence supports using $50.0, as adjusted over time, as the carbon price. Pet. NOI, Tab C at 24-25; Tr. 1 (Michel) at 231-34; Tr. 7 (Michel) at 79-80.

processing. Pet. NOI, Tab C at 10 (Table 1), 11; Pet. R-NOI, Tab B at 42-43 ("Based upon Tri-State's own numbers, the impact will be about a 0.33 percent increase to Tri-State's member consumer electric bills in the first year, growing by that same fraction of a percent in each subsequent year"), 54; Tr. 1 (Michel) at 35-36, 100; Tr. 5 (Michel) at 225-226, 242; Tr. 6 (Michel) at 166-169, 172-176; Tr. 7 (Michel) at 84-86; Tr. 9 (Michel) at 243-44 (maximum cost of regulation would be 0.8% of Tri-State's approximately $1.3 billion in revenues, noting mathematical error of Tri-State witness Spiers); Tr. 9 (Michel) at 269; cf. City of Farmington NOI Tab B (Kappelman) at 12 (noting rule's structure would result in "modest initial cost impacts").

13. As a practical matter, the costs and revenues of regulated sources will not be affected by Part 100, but will continue to be dominated by the vagaries of global market forces and commodity prices. Pet. R-NOI, Tab B at 37; Tr. 1 (Michel) at 46, 101; Tr. 7 (Michel) at 85.

14. By placing a price on carbon and creating a market for offsets and businesses that specialize in reduction technologies and renewable resources, the regulation will likely induce economic activity in New Mexico and may have a net positive effect on the state's economy. Pet. R-NOI, Tab B at 10-11, 38 ("greenhouse gas regulation will likely be a boom for the natural gas industry"); 41 ("rule more likely to drive development into New Mexico than out"); Tr. 1 (Michel) at 46, 172, 261; Tr. 2 (Collins) at 59-60 (regulations will provide extra "push" to incentivize methane reductions at upstream oil and gas sites); Tr. 7 (Michel) at 88, 93-96, 105-07, 113-14, ; Tr. 9 (Michel) at 256. Moreover, the emission baseline for new sources set by the regulation would create an incentive to locate sources here, because they can emit less than the baseline and thus establish valuable credits. Pet. R-NOI, Tab B at 5-6, 8-9, 25, 40; Tr. 1 (Michel) at 119, 223; Tr. 5 (Michel) at 300-302; Tr. 9 (Michel) at 245, 263-66, 294-295 (listing

energy sources that can "beat" the baseline), 342.

15. Wind and solar energy generate 40% more jobs per dollar invested than coal mining. The solar and wind industries create about 5.7 jobs per million dollars invested over a ten-year period, compared to the coal industry, which creates only 3.96 jobs per million dollars. Pet. R-NOI, Tab C (LaDuke) at 15.

16. As a general rule, the combustion of coal emits twice as much CO2 as natural gas per MWh. Pet. R-NOI, Tab B at 15; Tr. 1 (Michel) at 212; Tr. 8 (Simms) at 95; Tr. 7 (Michel) at 40; Tr. 9 (Michel) at 345. The demand for natural gas, viewed as the transition fuel, will likely increase if the Board adopts the rule. Pet. R-NOI, Tab B at 38; Tr. 1 (Michel) at 224-225; cf. Tr. 8 (Richards) at 132 (increased natural gas demand would avoid perceived "death spiral"). The rule should not adversely affect investment in new coal-fired coal plants. The rule does not mandate the use of any particular resource or technology (Tr. 9 (Michel) at 345), and even without the rule, utilities are far more likely to invest in new gas-fired power plants than coal-fired plants. Tr. 9 (Michel) at 342, 357.

17. Because of the availability of offsets and cost-effective means of reducing CO2 emissions through efficiency and other measures, it is highly unlikely that a source's actual compliance costs will ever come close to the cost cap provided in the regulation. Pet. R-NOI, Tab B at 49; Tr. 1 (Michel) at 43, 45, 65, 95, 102-03, 201, 212, 214, 216-17, 243; Tr. 1 (Hausman, VP, Synapse Economics) at 259-261; Tr. 5 (Michel) at 241-244, 228, 252-55; Tr. 9 (Michel) at 267. In the unlikely event a source reaches the cost cap in a given year, it is excused from further compliance for that year. Tr. 5 (Michel) at 199, 241-242.

18. Although opponents speculated about the possibility of "leakage" under the regulation, none provided evidence that it would occur. No evidence in the record shows that any regulation

has ever induced leakage from New Mexico or any other jurisdiction, much less a regulation similar to the one under consideration. Utilities hoping to sell power to New Mexicans from out-of-state sources, moreover, would not have a "free ride" but would have to obtain approval from the New Mexico Public Regulation Commission. Tr. 5 (Michel) at 307.

19. No evidence shows that any covered source could operate more profitably in another state; nor did any party provide any economic or regulatory comparison of New Mexico to other states. In reality, covered sources are linked to New Mexico by the location of the resource (oil and gas) or the location of customers (utilities). Pet. R-NOI, Tab B at 32. Moreover, other states also impose various greenhouse gas reduction requirements and renewable portfolio standards and may impose additional requirements in the future. Tr. 9 (Michel) at 297. Finally, the modest costs imposed by this regulation are unlikely to justify moving facilities or purchasing power out-of-state. Pet. R-NOI, Tab B at 32-33.

20. There are multiple cost-effective opportunities and means by which CO2 and other greenhouse gas emissions can be reduced in New Mexico, including improved efficiency, fuel-switching, employment of solar, wind and other renewable resources (either alone or in combination with fast-starting combustion and combined-cycle turbines), carbon capture and sequestration (or use in tertiary oil recovery), leak detection and cessation, de-pressuring gas pipelines, dairy biogas combustion, switching from combustion to electricity; vapor recovery units, vacuum release valves, use of co-generation (electricity and heat), methane recovery at landfills, rangeland management, refrigerator recycling, methane recover from underground coal mines, green completions of oil and gas wells, etc. Pet. NOI, Tab C at 18; Pet. R-NOI, Tab B at 5, 11, 13, 20-21, 23-25, 27, 34-35, 47; Tr. 1 (Michel) at 80-81, 95-96, 103, 212-215, 221; Tr. 2 (Peridas) at 30-43; (Randolph) at 43-53; (Collins) at 57-68; Tr. 5 (Michel) at 187-191, 257, 279;

Tr. 6 (Michel) at 152-158; Tr. 7 (Michel) at 44-47, 85-86; Tr. 8 (Simms) at 97.

21. There are 89 discrete practices or technologies for methane reduction in the oil and gas sector. These include reduction options for oil and gas production (e.g., at well sites, gathering lines), processing (e.g., natural gas plants) and transmission (e.g., larger pipelines). Pet. R-NOI, Tab G; Tr. 2 (Collins) at 58-63.

22. Eliminating methane from the rule alone creates millions of metric tons of potential offsets. Tr. 5 (Michel) at 43, 190, 214, 216-17; Tr. 7 (Sprott) at 233-34; cf. Tr. 8 (Simms) at 96; Tr. 9 (Michel) at 260-65, 319, 332-333 (BHP mine provides opportunities to reduce methane emissions on the order of hundreds of thousands of metric tons), 357-358.

23. Renewable energy sources, such as wind and solar, can be added to existing power generation without adversely affecting system reliability or fast-start capability. Tr. 5 (Michel) at 208; Tr. 9 (Michel) at 292-293. Indeed, as demonstrated by a PNM exhibit, this is key to California's strategy for reducing greenhouse gas emissions. PNM Surrebuttal (Bothwell), PNM Exhibit CDB-6S at 2-3 (December 24, 2009, letter from the California Energy Commission to EPA).

24. Even opponents admitted that an offset market will be stimulated by adoption of Part 100. Tr. 9 (Bothwell) at 82. And that Devon Energy Corporation has implemented profitable carbon reduction techniques and is banking credits from the anticipated price on carbon. Tr. 8(Smith) at 303.

25. The actions that are taken by specific companies, such as Devon and PNM, to reduce GHG emissions may qualify for early action credits under Part 100, and reductions required under Part 100 will also likely qualify for early action credits under a future federal GHG program. Pet. NOI, Tab B at 11-13, 15, 20, 31, 39, 55.

26. The incredible range of impacts estimated by one economist, who assumed no positive benefits from the rule, was an unbelievable $0.0 to $1.7 billion. Tr. 8 (Lillywhite) at 46-48, 56, 58 ("the net effect is going to be close to zero when you have -- you are exchanging money"), 60. Mr. Lillywhite provided no documentation of the output or assumptions of his simple Excel model. Tr. 8 (Lillywhite) at 42-44, 47.

III. Technical Practicability

27. NMED has sufficient staffing, funding and skill to implement Part 100. Tr. 6 (Michel) at 163; Tr. 7 (Sprott) at 165-174, 195-96, 201, 249-50 (one FTE required); Tr. 9 (Michel) at 374-75. The rule is appropriately flexible and provides appropriate discretion to NMED, enabling it to apply the rule to diverse sources and situations. Tr. 7 (Sprott) at 168-174, 186, 194. The flexibility provided in Part 100, as well as the many "off ramps," will obviate the need for formal variances. Tr. 7 (Sprott) at 186, 194.

28. The definition of "source" in Part 100 is clear and workable and provides sufficient certainty to regulated sources. Id. at 196-99, 224; Tr. 6 (Michel) at 78. Reporting under Part 100 will track reporting to EPA and will not impose an undue burden on industry. Id. At 229-30.

AMENDMENTS

29. The Board amended Section 20.2.100.5 - EFFECTIVE DATE to read: "January 1, 2013, or six months after 20.2.350 NMAC is no longer in force, whichever date is later."

30. The Board amended Section 20.2.100.15 – SUNSET to read: "This part shall sunset if a regional or federal greenhouse gas reduction program is in place or ten years after the effective date."

31. Other sections of the proposed rule were amended to comport with these changes. These amendments are detailed in the deliberation transcript.

ORDER

By an affirmative vote of 4 to 1, the proposed new regulation was approved by the Board on December 6, 2010 with the amendments as detailed in this Order and the hearing transcript. The regulations described in this Order are hereby adopted, to be effective 30 days after filing with the State Records Center.

Gay Dillingham, Chair
On Behalf of the Board

Dated: 12-29-10